UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICES DIVISION
REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

July 31, 1992

MEMORANDUM

SUBJECT: Federal On-Scene Coordinator's Report for Hellwig's Fruit Stand, Chesterfield, Missouri

FROM: Paul Doherty, Acting Chief
Emergency Planning and Response Branch

TO: Debbie Dietrich (OS-210)
Acting Director, Emergency Response Division

Attached is the Federal On-Scene Coordinator's Report for the Hellwig's Fruit Stand site, Chesterfield, Missouri.

Attachment

cc: Robert Morby, SPFD
Barbara Ramsey, NRT
SPFD Records Center

210967

FEDERAL ON-SCENE COORDINATOR'S REPORT

HELLWIG FRUIT STAND
CHESTERFIELD, MISSOURI
SEPTEMBER 5, 1990 - JULY 31, 1991

Executive Summary of Response Actions

Site: Hellwig's Fruit Stand

Location: Chesterfield, Missouri

Project Dates: September 5, 1990, through July 31, 1991

Incident Description: Allegations from former Bliss Oil Company truck drivers prompted the investigation of all fruit stand locations that had operated on Old Highway 40, in Chesterfield, Missouri, since 1970. Results from surface soil and structural dust samples obtained in September and October 1989 from Hellwig's Fruit Stand indicated the presence of 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD) contamination in the soils and structural dust at levels above the established action level of 1 part per billion (ppb). A subsequent 95% upper confidence level (UCL) site assessment conducted in November 1989 delineated the boundaries and levels of TCDD contamination present at the site. An Action Memorandum for sampling, removal, and consolidation of TCDD-contaminated waste was signed by the Assistant Administrator of Solid Waste and Emergency Response on August 31, 1990.

Actions: The Missouri Dioxin Excavation Contractor was mobilized on September 5, 1990, and site response actions began December 12, 1990, with the implementation of a work plan for the construction of a temporary site access road and construction of a secure 120- by 50-foot temporary storage facility on the Hellwig property. The TCDD-contaminated fruit stand structure was cleaned by use of abrasive sandblasting followed by alconox/water steam cleaning from May 6, 1991, through May 15, 1991. The debris generated during the cleaning was placed into 12 two cubic yard bags which were placed inside the temporary storage facility. Sampling of the cleaned building verified successful removal of TCDD to levels below the laboratory analytical detection limit. From May 28, 1991, through July 19, 1991, all TCDD-contaminated soils were excavated and placed in a total of 815 two cubic yard bags which were stored inside the temporary storage facility. Surface soil sampling verified successful removal of TCDD contaminated soils below the established action level of 1 ppb at the 95% UCL. Site restoration activities began on June 11, 1991, and ran concurrently with site excavation activities until the end of the project on July 31, 1991. During that time the temporary access road was removed, and all excavated areas were backfilled with clean soils, graded, and seeded.

for Ron McLuckie

James R. MacDonald, OSC
U.S. EPA, Region VII
Kansas City, Kansas

Hellwig's Fruit Stand
Chesterfield, Missouri
OSC Final Report
James R. MacDonald
July 31, 1992

I. SUMMARY OF EVENTS

A. Site Conditions and Background

1. Initial Situation

Former drivers for Bliss Oil Company alleged that oil contaminated with 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD) was used for dust suppression at a group of fruit stands located along Old Highway 40 near the St. Louis County Correctional Institution at Gumbo, Missouri, sometime in the early 1970s.

Subsequent investigations conducted in September and October 1989 indicated that TCDD soil contamination was present in levels up to 175.791 parts per billion (ppb) on and around Hellwig's Fruit Stand property located at 17800 Chesterfield Airport Road (i.e. Old Highway 40). TCDD contamination in levels up to 5.549 ppb were found to be present in dust samples taken from the southern room (approximately 3,400 square feet) of Hellwig's 10,000 square foot, three room retail/warehouse building, but no other TCDD contamination of structures was found on the site.

The site consists of two separately-owned properties; Hellwig's Fruit Stand (owned by Anna Hellwig) and an active corn field [owned by Chesterfield Industrial Investors (CII), a Missouri Joint Venture, 50 South Bemiston, St. Louis, Missouri 63105]. The site is located in a semi-rural area in the Township of Chesterfield, St. Louis County, Missouri. Hellwig's Fruit Stand (i.e. Hellwig's Roadside Market) property occupies a section of land which is approximately 400 feet east-west by approximately 570 feet north-south. A retail/ warehouse building of approximately 100- by 100-foot size, a 25- by 100-foot greenhouse, and a 23- by 17-foot pump house shed are the only buildings on the property. Adjacent to the western border of Hellwig's property is the field owned by CII. Hellwig's is bordered on the north by Chesterfield Airport Road, a three lane concrete road running east to west that is the only access road to the site. North of Chesterfield Airport Road is another agricultural field. Chesterfield Airport Boulevard, a two-lane concrete road, extends south from Chesterfield Airport Road along the eastern border of Hellwig's property for approximately one-tenth of a mile before it enters an

Industrial Park located south of the site. This park consists of approximately 14 buildings of various sizes, which house approximately 50 offices and small businesses. Directly east of Chesterfield Airport Boulevard are the Chesterfield Bank and a vacant lot. Located approximately two tenths of mile west of the site on the north side of Chesterfield Airport Road are the only two residences found within a quarter mile of the site. Their legal addresses are 17831 and 17839 Chesterfield Airport Road.

Hellwig's Fruit Stand was actively engaged in the business of retailing fruits, vegetables, and a variety of garden plants when the initial investigation revealed the presence of TCDD contamination in the soils and building. Analytical results of samples obtained from the fruit stand's produce indicated that TCDD contamination was not present on the produce.

Hellwig's Fruit Stand had been in operation for approximately 20 years and was initially operated by the Hellwig family. However, in March 1982 the property was leased to Denny Moore, who subsequently ran the fruit stand as a tenant. The lease expired during March 1990 and was not renewed by Denny Moore.

2. Location of Hazardous Substance

The extent of TCDD soil contamination at the site was delineated by subsequent 95% UCL surface soil sampling conducted by TAT in November 1989 in accordance with A Sampling Strategy for Remedial Action at Hazardous Waste Sites: Cleanup of Soil Contaminated by Tetrachlorodibenzo-p-dioxin. The TCDD levels of 1 ppb in soils and 1 nanogram per square meter on structural surfaces were established by the Agency for Toxic Substances and Disease Registry (ATSDR) as levels requiring action to remove the potential threat to the public health. Only the southern room of Hellwig's three-room retail/warehouse building was found to be contaminated with TCDD above the 1 ppb TCDD action level. The exterior area of TCDD soil contamination above the action level of 1 ppb was found to consist of approximately 46,715 square feet of land, as shown in Table I. Approximately 41,465 square feet was on Hellwig's Fruit Stand property and consisted mainly of the driveway and parking lot areas. Approximately 5,250 square feet of TCDD-contaminated soils were found in the corn field owned by CII, which was adjacent to the western border of Hellwig's property.

TABLE I TCDD Contaminated Soils			
Area*	Size (sq. feet)	95% TCDD Levels (ppb)	Ownership
1	2100	23.50	Hellwig (1475 sq. ft.) CII (625 sq. ft.)
2	5000	100.69	Hellwig (4575 sq. ft.) CII (425 sq. ft.)
4	2000	3.18	Hellwig
5	5775	109.96	Hellwig
6	4800	161.92	Hellwig
7	5600	10.61	Hellwig
8	5200	56.98	Hellwig
9	3840	77.39	Hellwig
10	5600	35.29	Hellwig
12	2600	2.48	Hellwig
14	2500	1.73	CII
15	1700	1.36	CII
* See Attachment A: Maps			

The results of the 95% UCL sampling effort were submitted to ATSDR on November 16, 1989, along with a recommendation to restrict access to the TCDD-contaminated areas due to the high volume of vehicular and pedestrian traffic, which would increase the possibility of public exposure through dermal contact, ingestion, and inhalation. ATSDR concurred with the EPA's recommendation on December 22, 1989, and access to Hellwig's Fruit Stand was restricted.

3. Cause of Release

During the early 1970s Bliss Oil Company had contracted with Hellwig's Fruit Stand to spray the parking lot and driveway on the property with waste oil in order to control dust. The waste oil used for the dust suppression contained TCDD. Over time the TCDD contamination was spread by wind, water erosion, and traffic tracking across the site soil and in and out of the structure.

4. Efforts to Obtain Response by Responsible Parties

Litigation titled U.S. vs Bliss, et al., has been filed in the Federal District Court for the Eastern District of Missouri. The suit originated in January 1984 and included six

dioxin sites. Twenty-one additional sites were added to the litigation in February 1989. Defendants in the case are Russell Bliss; Independent Petrochemical Corporation; Northeastern Pharmaceutical and Chemical Company, Inc., and two of its principals, Edwin Michaels and John Lee; Syntex Agribusiness, Inc.; Syntex Laboratories, Inc.; Syntex (U.S.A.), Inc., and Syntex Corporation. All of the named defendants are alleged to have generated the TCDD-contaminated wastes or to have made arrangements for disposal. Also named was Jerry-Russell Bliss, Inc., who accepted the wastes for disposal. Jerry-Russell Bliss, Inc., is the successor corporation to the Bliss unincorporated business. A complaint was filed for the Hellwig Site on April 6, 1990, naming the same defendants. That complaint was consolidated with the existing litigation.

One of the Potentially Responsible Parties (PRP), Syntex Agribusiness, Inc., along with some of its affiliates, signed a consent decree regarding removal and disposal of TCDD-contaminated materials found in Eastern Missouri. Under this decree, EPA would conduct TCDD-removal activities and store TCDD-contaminated materials on site until permanent disposal arrangements could be established.

B. Organization of the Response

An Action Memorandum for sampling, removal, and consolidation of TCDD-contaminated waste was signed by the Assistant Administrator of Solid Waste and Emergency Response on August 31, 1990.

The removal action was conducted in three phases after TCDD-contaminated areas had been delineated.

Phase One

Mobilization of removal contractors. Construction of a temporary storage building for storage of TCDD-contaminated materials and construction of a temporary gravel road in order to expedite TCDD-removal activities was required. All construction was in accordance with state, city, and county regulations or requirements, as well as being in accordance with 40 CFR 264 Subpart I of the Resource Conservation and Recovery Act (RCRA).

Phase Two

Decontamination of TCDD-contaminated structures to the action level of 1 nanogram per square meter and TCDD-contaminated soil excavation and removal to the action level of 1 ppb. TCDD-contaminated materials were stored in the temporary storage building pending permanent disposal arrangements.

Phase Three

Removal of temporary gravel road, backfilling and seeding of excavated areas, and general site restoration in accordance with city, state, and county requirements and the negotiated property owner access agreements.

Site maintenance: Drainage control measures were undertaken at the site to provide surface runoff around the storage building to an adjacent ditch.

The participants involved in the site removal activities are shown in Table II.

TABLE II
Organization of Response

Agency/Party Involved	Contact	Duty Description
US EPA - Region VII Emergency Planning and Response Branch 25 Funston Road Kansas City, KS 66115 (913) 551-5000	Reta Roe, OSC James MacDonald, OSC	9/19/90 to 6/25/91 6/25/91 to 7/31/91
Ecology & Environment, Inc. Technical Assistance Team 13722 Shoreline Court East Earth City, MO 63045 (314) 298-0077	Joe Parish Ed Martin	Provided OSC with technical assistance, administrative support, sampling and sample data management, photo and site documentation, and report preparation.
Riedel Environmental Services 18207 Edison Avenue Chesterfield, MO 63005 (314) 532-7660	Dan Wilson Don Flowers	Response Managers: Provided personnel and equipment and conducted removal activities.
Hemphill Contracting Co., Inc. 1720 Laclede Station Road St. Louis, MO 63117 (314) 644-3993	Ron Hemphill	Partner/Subcontractor of RES
Crown Construction 1276 St. Cyr Road St. Louis, MO 63137 (314) 867-8027	Masood Cahyjhtai	Storage building construction.

C. Injury/Possible Injury to Natural Resources

1. Content and Time of Notice to Natural Resources Trustees

The Missouri Department of Natural Resources (MDNR), the City of Chesterfield (CC), and the County of St. Louis (SLC) were notified of the discovery of TCDD-contaminated soils and structures in October 1989. Subsequent site assessment

activities conducted in November 1989 allowed delineation of the location of all TCDD- contaminated areas. This information was furnished to MDNR, CC and SLC upon receipt of sample results in November 1989.

2. Trustee Damage Assessment and Restoration Activities

EPA held discussions with the CC Zoning Commission, MDNR, and SLC regarding construction, orientation and appearance of the temporary storage barn from September 19, 1990, through December 10, 1990. Other items discussed included construction of a temporary gravel road, site landscaping, and maintenance of the storage building area after the removal. MDNR agreed to provide minimal maintenance of the storage building area and a final construction plan was approved by the CC Zoning Commission on December 11, 1990. On March 21, 1991, a final building permit was issued by SLC for the storage building construction.

D. Chronological Narrative of Response Actions

1. Threat Abatement Actions Taken

EPA mobilized the Missouri Dioxin Excavation Contractor (MDEC), Riedel Environmental Services (RES), under TDD No. 52, contract No. 68-01-7462 on September 5, 1990. On September 19, 1990, EPA and RES began discussions with SLC, CC, MDNR, and the property owners concerning requirements for temporary storage building and road construction as well as restoration activities. By December 11, 1990, a final work plan was accepted by all parties and all appropriate permits had been issued, except for the final permit for storage building construction. Discussions concerning the final storage building construction plans continued until SLC issued a permit on March 21, 1991.

Site work began on December 12, 1990, and continued until December 19, 1990, at which time the site work was discontinued until April 1, 1991, due to cold weather conditions.

On April 1, 1991, site work resumed on the construction of the storage building pad, driveway, and temporary access road. By April 12, 1990, the pad, driveway, and road were completed and construction of the temporary storage barn began.

On April 29, 1991, RES began installing negative air pressure machines inside the Hellwig's retail/warehouse building

in order to prevent the spread of TCDD from the southern room during decontamination activities. Installation was completed on May 3, 1991.

On April 30, 1991, three wipe samples were taken from the middle room of the retail/warehouse building in order to investigate the possibility that TCDD contamination could have spread to the middle room since the most recent sampling effort. All samples indicated TCDD was nondetectable at laboratory analytical detection limits of 0.400 pg/cm squared.

On May 3, 1991, installation and calibration of the TCDD ambient-air-monitoring network was completed in accordance with the site-specific Quality Assurance Plan for Ambient Dioxin Monitoring. The network included four General Metal Works PS-1 Puf samplers, which were arranged so that upwind and downwind sample points existed for any given wind direction affecting the site, and a meteorological weather station for monitoring site weather conditions, and determining sample volumes. The air-sampling network was established in order to assess the quantity of TCDD which might be carried by air off the site, allowing for changes to prevent potential population exposure through modification of site excavation activities.

On May 6, 1991, response phase two began. RES personnel wearing level B personal protective equipment began removing sheetrock and insulation from the internal surfaces of the southern room of the retail/warehouse building. After that removal was completed, the internal surfaces of the southern room were subjected to abrasive cleaning by use of a sandblaster emitting crushed corn cobs and walnut shells. The dislodged debris was continuously removed from the southern room by use of a vacuum truck and was placed in lined, two cubic yard polypropylene bags. The filled bags were tied shut and then stored outside the building pending completion of the temporary storage barn. The abrasive cleaning of the southern room was completed on May 13, 1991, having generated 12 bags of debris. Steam cleaning of the internal surfaces of the room as well as of the vacuum truck and all miscellaneous equipment and furniture found in the room began on May 14, 1991, and was completed by May 15, 1991. Wipe samples from the steam-cleaned room, vacuum truck, and the miscellaneous equipment and furniture were collected and submitted for analysis. All sample results showed TCDD levels nondectable above laboratory analytical limits of 0.400 pg/cm^2. The air monitoring network and air sampling plan were activated on May 6, 1991, just before building decontamination activities began and was run continuously throughout phase two (Building decontamination and TCDD-contaminated soil excavation) in accordance with the EPA-approved air-monitoring plan. Throughout the response phase, no TCDD was detected in any air sample taken.

From May 17-27, 1991, preparations were made to begin TCDD- contaminated soil excavation, removal, and the storage portion of response phase two. During this period RES personnel operating a track hoe excavated the TCDD-contaminated soils and transferred the soils to lined, two cubic yard polypropylene bags through a funnel-shaped hopper. After being filled with dirt, the bags were tied shut and transferred by a crane to a dump truck. The truck transported the bags to the storage area, where a rubber-tired front end loader using forks removed the bags from the dump truck and stacked them inside the storage area.

On May 28, 1991, the construction of the 120- by 50-foot temporary storage barn was completed, although it still required SLC's inspection before it could be used. As a result, bags containing excavated TCDD-contaminated soils were stored behind the retail/warehouse building on Visqueen until the barn was approved for storage by SLC on May 29, 1991. After the approval by SLC, all the bags that were previously stored behind the retail/warehouse building were moved and stored in the barn. All bags generated after that time were stored in the storage building.

TCDD-contaminated soil excavation, removal, and storage on the Hellwig property began on May 28, 1991, and was completed on July 8, 1991. Removal activities on the Hellwig property began with Area 12 and proceeded through Areas 10, 7, 6, 4, 9, 8, 5, 1 and finally Area 2. An area was further excavated when 95% UCL sample results indicated that TCDD contamination remained above the 1 ppb (1 ng/g) action level. Area 2 was subdivided into two equally sized areas designated 2West and 2East in order to facilitate removal and sampling. Area 2West was further divided into four equally sized subsections, which were designated as 2WA, 2WB, 2WC and 2WD in order to find the exact location of the TCDD-contaminated soils present in 2West and to facilitate removal. Site area excavation activities for excavation of the Hellwig property are shown in Table III.

TABLE III Hellwig Property Excavation Activities				
Excavation				95% UCL
Area	Depth Inches	Dates (1991)	Bags Removed	Sample Results (ng/g)
1	0-6	6/17-18	28	113.243
1	6-12	6/20-21	24	0.300 U
2E-2W	0-6	6/11-17	64	2E=4.930 2W=16.522
2E-2W	6-12	6/19-20	37	2E=3.393 2W= 3.233
2E	10-14	6/21	16	0.300 U
2W	10-14	6/24	17	3.878
2W	14-20	6/25-27	25	4.331
2WA-2WD	20-26	7/1	23	2WA=3.606
2WA	26-32	7/8	7	2WB,2WC,2WC=0.300U 0.300U
4	0-4	6/6-7	11	1.757
4	4-10	6/11	17	1.385
4	10-12	6/13	6	0.300U
5	0-6	6/11-12	74	1.921
5	6-8	6/14-17	8	0.359
6	0-6	6/5-6	79	0.930
7	0-6	5/30-6/3	65	0.612
8	0-6	6/10-11	47	4.243
8	6-10	6/14	26	0.300U
9	0-6	6/7	48	0.300U
10	0-6	5/29-30	53	13.179
10	6-12	6/3-5	59	0.300U
12	0-6	5/28-29	32	0.300U
Total Bags 765				

TCDD-contaminated soil excavation, removal, and storage began July 8, 1991, on CII property and was completed on July 12, 1991. As approximately 625 square feet from Area 1 and approximately 425 square feet from Area 2 were on CII property, these areas were combined with CII property Areas 14 and 15 into two differently-designated areas. One area, which bordered the Hellwig property, was a 210- by 20-foot rectangle (4,200 square feet), while the second area was triangular with a 10-foot base and 210-foot height (1,050 square feet). The rectangle was further subdivided into 42 sections, which were 10- by 10-foot squares. These sections were designated as Area A, sections A01 through A42, while the triangle was designated as Area A43. On June 26, 1991, one sample consisting of four aliquots was taken from each of the 10- by 10-foot areas, A01 through A42, for a total of 42 samples, along with four duplicate samples. One

sample consisting of 50 aliquots was taken from area A43 according to the 95% UCL method. On July 8, 1991, two more samples were obtained from Area A43, according to the 95% UCL method and all three sample results were combined to produce the 95% UCL result for Area A43 of 0.830 ng/g.

According to the sample results, only areas A4-A20 and A29-A42 contained TCDD levels above the 1 ppb action level. As a result, only these areas were excavated and resampled. On July 8 and 9, 1991, these areas were excavated and resampled in the same manner as before. Sample results indicated that areas A17-A19 needed further excavation. However, on July 9 and 10, 1991, heavy thundershowers flooded the site and threatened to wash TCDD-contaminated soils from unexcavated areas into previously-excavated areas. As a result the contaminated soils were covered with Visqueen, and straw barriers were placed between the contaminated areas and the uncontaminated excavated areas. The water was then pumped from the flooded areas to a Visqueen/straw filtration system, where the sediments were filtered from the water and the water placed into 55-gallon open top drums. The water in these drums, along with the soils from the excavated areas (A16, A20, A36-A40 and Area 1) and from around the Visqueen/filtration system, were sampled. Sample results from all the soils and the water sample indicated that TCDD contamination was below the established action level.

Excavation of the soils from areas A17, A18, and A19 resumed and was completed on July 12, 1991. The areas were sampled and samples submitted for analysis. The sample results indicated the 95% UCL for Area A (A01-A42) was 0.681 ng/g. A total of 50 bags of TCDD-contaminated soil was generated and stored in the temporary storage building during the excavation of the CII property.

All contaminated equipment was then decontaminated by alconox/water steam cleaning and then wipe sampled on July 15, 1991, and July 17, 1991. All wipe sample results received on July 19, 1991, indicated that no TCDD-contamination was present in the samples. The response phase two was completed July 19, 1991. The excavation equipment and air monitoring network were removed from site by July 23, 1991.

A total of 50 bags of TCDD-contaminated soil was generated from CII property and a total of 765 bags of TCDD-contaminated soil was removed from the Hellwig property for a site total of 815 bags of contaminated soil. Twelve bags of debris were generated during the building decontamination and one bag of TCDD-contaminated trash was generated throughout the removal duration for a total of 828 bags. All bags were stored in the temporary storage building.

Site-generated decontamination waste water was placed into two 2,000-gallon storage tanks located west of the RES decontamination trailer. As these tanks became full, water samples were taken from them and submitted for analysis. If sample results indicated that no TCDD contamination was present in the water samples, the water in the tanks was discharged. If TCDD was present in the water samples, the water in the contaminated tank was subjected to carbon filtration and resampled. This filtration process was repeated until no TCDD was detected in the water sample. The tanks were washed and any sludge was placed in a bag and stored in the temporary storage building, along with the carbon filtration drums.

Response phase three or the restoration phase began June 11, 1991, when RES began backfilling and grading the site with stockpiled soils generated during the construction phase. Topsoil, which was to be purchased from Kurtz Nursery and used in the restoration phase, was sampled by TAT and submitted for analysis on June 12, 1991. The sample results indicated that no TCDD was present in the sample above 0.300 ng/g detection limits. As a result, the backfilling and grading of the excavated areas with topsoil began on June 14, 1991, and continued throughout the duration of the project. Seeding and general landscaping also began on that day and continued until completion of the project. An area around the storage building area and building driveway were asphalted on June 25, 1991. From July 2-8, 1991, the security fence around the temporary storage building was installed. The temporary storage building construction was then approved by SLC.

From July 24-29, 1991, the clean gravel from the temporary access road was excavated and transported to the Romaine Creek site. The gravel is being used for road maintenance to the storage building there. The excavated road area was backfilled with soil and graded. All equipment and trailers had been removed from the site, and the final grading and restoration were completed on July 31, 1991.

The Hellwigs contacted EPA OSC during the fall of 1991 and requested that measures be taken to drain the standing water on the site. This problem was corrected by placement of a 15-inch corrugated metal pipe under the access road to a concrete drop structure, along the storage building to the rear, to a rock outfall structure. Brush hogging and grading were required to drain the water from the site to the corrugated metal pipe. A sediment fence and rock were placed along the southern property boundary to prevent siltation runoff off site. Restoration required the placement of matting, straw, seed, and asphalt repatching. The work was completed July 15, 1992. Site inspections will continue to monitor storage conditions at the site.

2. Treatment/Disposal/Alternative Technology Approaches

All TCDD-contaminated debris, excavated soils, and trash were stored inside the secure temporary storage building pending transportation to Times Beach for incineration. TCDD-contaminated water was carbon filtered and discharged after sample results indicated no TCDD was present in the water. Straw/visqueen barriers were used successfully to prevent erosion of TCDD-contaminated soils into nonTCDD-contaminated areas and to filter sediments from water pumped from flooded areas.

TABLE III
Materials Disposition

Material	Amount	Method	Location
Soils	815 bags	Storage	Hellwigs
Trash	1 bag	Storage	Hellwigs
Debris	12 bags	Storage	Hellwigs
Water	--	Filtered and discharged	Hellwigs
Carbon Filtrate	2 drums	Storage	Hellwigs

3. Public Information and Community Relations Activities

Public relations were implemented in accordance with National Contingency Plan (NCP), Section 300.415. Public questions concerning site activities were addressed by EPA Region VII Public Relations and Information Center located at Times Beach, Missouri. SLC and CC requests regarding site activities, such as site restoration, landscaping, barn orientation, and color were accommodated whenever possible. National and local press requests to photograph site activities were granted whenever they were received. EPA cooperated fully with all interested parties in an effort to maintain good relations with the community.

E. Resources Committed

Removal Project Estimated Total Cost

Extramural Costs

Total Cleanup Contractors Cost	521,391.45
Total TAT Costs	24,631.83
Total NCLP Costs	109,586.29
Extramural Costs Subtotal	655,609.57

Intramural Costs

EPA Direct Costs	50,061.63
EPA Indirect Costs	93,665.50
Intramural Costs Subtotal	143,727.13
Estimated Total Project Costs	799,336.70
Project Ceiling	$1,639,585.00

II. EFFECTIVENESS OF REMOVAL ACTIONS

A. Actions Taken by State and Local Forces

MDNR had no specific action at the Hellwig site other than monitoring activities periodically as they had done at the other Dioxin sites. The County of St. Louis and the City of Chesterfield were involved with the zoning and permitting of the Dioxin storage building.

B. Actions Taken by Contractors

1. TAT Contractor

TAT provided assistance from December 14, 1991, until the completion of the project on July 31, 1991. TAT provided site documentation and photo documentation of all site activities and monitoring of removal contractors. TAT provided technical assistance for all site sampling, provided sample packaging, shipment to the assigned CLP laboratory and management of sample data using the MiniLAST data management system. TAT also implemented the air monitoring network to monitor ambient TCDD air concentrations around the site.

2. Site-Specific Contractor

a. RES under the Region VII Dioxin Contract was the prime removal contractor. They provided the trained personnel with personal protective equipment (PPE) for Level C in accordance with the site safety plan. They furnished the equipment necessary for removing the contaminated Dioxin soils, placement of soil into the two cubic yard polypropylene bags, transporting the bags, and stacking them in the temporary storage building on site. They coordinated with subcontractors, Havens-Emerson for survey work and building construction plans; John Mathes and Associates for soil profiles at the building site; Hemphill Contractors for construction of the building pad and temporary access road; and with World Security for site security during the removal action. Building permits with St. Louis County and the City of Chesterfield were acquired by RES.

b. Crown Construction built the steel sided temporary storage building according to specifications under the Region VII building contract. They were also involved with the drainage control measures around the storage building.

III. DIFFICULTIES ENCOUNTERED

The only problems encountered during this removal were weather delays caused by heavy rainfall. This was overcome by time and extra effort.

IV. RECOMMENDATIONS

Begin the process of acquiring access to the property for removal actions as soon as possible through coordination with Counsel. The local governments approval process for building and construction permits can be lengthy and cause project delays.